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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/497,238

02/03/2000

Heikki Kokkinen

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7249

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05/21/2004

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EXAMINER

HOYE, MICHAEL W

ART UNIT

PAPER NUMBER

2614

8

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/497,238

Applicant(s)

KOKKINEN, HEIKKI

Examiner

Michael W. Hoyer

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/979,489.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Amendment, filed February 27, 2004, with respect to the rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Takefman (WO 96/15599) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ghaibeh (USPN 5,926,476), in further view of Kolze et al (USPN 6,285,681).

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,091,440. Although the conflicting claims are not identical, they are not patentably distinct from each other as follows: The claimed method for transmitting digital data in a channel of a cable television system of claim 10 equates to the claimed method for transmitting digital data in a channel of a cable television system of patented claim 2. The claimed applying TDMA of claim 10 equates to the

Art Unit: 2614

claimed applying TDMA of patented claim 2. The claimed slots of a defined slot length are assigned for terminal equipment in order to distribute the use of data transmission capacity to the equipment of claim 10 equates to slots of a defined slot length are assigned for terminal equipment in order to distribute the use of data transmission capacity to the equipment of patented claim 2. The claimed use of slots in the cable TV system are controlled by indications transmitted downstream of claim 10 equates to the use of slots in the cable TV system are controlled by indications transmitted downstream of patented claim 2. The claimed slots are further divided into mini slots of claim 10 equates to the slots are further divided into mini slots of patented claim 2. The claimed indications transmitted downstream of claim 10 equates to the indications transmitted downstream of patented claim 2. And the claimed length of three mini slots plus a guard byte is the same as the defined slot length of claim 10 equates to the length of three mini slots plus a guard byte is the same as the defined slot length of patented claim 2.

Claim 10 differs from patented claim 2 in that the claim recites transmitting digital data in an additional channel of a cable television system whereas patented claim 2 recites transmitting digital data in a channel of a cable television system. However, a minor variation in wording does not affect the scope of the claimed method. The portion of the specification in patent 6,091,440 that supports the recited additional channel that would anticipate claim 10 herein for transmitting digital data in an additional channel of a cable television system applying TDMA is met by the Abstract, col. 1, lines 30-46 and col. 5, lines 37-66.

Claim Rejections - 35 USC § 102

Art Unit: 2614

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Ghaibeh (USPN 5,926,476), cited by the Examiner.

As to claim 17, note the Ghaibeh reference which discloses the claimed method for transmitting digital data in an additional channel of a cable television system (col. 1, lines 52-67 and col. 2, lines 46-58) applying time division multiple access (TDMA, col. 3, lines 24-28 and col. 4, lines 7-11) in which slots of a defined slot length are assigned for terminal equipment in order to distribute the use of data transmission capacity to the equipment (col. 7, lines 49-60), and the slots in the cable TV system are controlled by use indications transmitted downstream (col. 13, lines 49-65), which slots are further divided into mini slots, the use of which is controlled by the indications transmitted downstream, wherein mini slots are used for the transmission of reservation messages which the terminal equipment use for informing a central configuration that the terminal equipment wish to reserve data transmission capacity (see Figs. 14-15, col. 13, line 66 – col. 15, line 12 and col. 16, lines 57-67).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2614

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ghaibeh, in view of Kolze et al (USPN 6,285,681), both cited by the Examiner.

As to claim 10, the Ghaibeh reference discloses most of claim 10 as described above for the rejection of claim 17. Ghaibeh discloses a defined slot length as previously described above, comprising six 11 byte "mini slots" and a guard space of 2 bytes as shown in Figures 14 and 15. Ghaibeh does not explicitly disclose that the length of three mini slots plus a guard byte is the same as the defined slot length. However, the Kolze reference also discloses a method of using TDMA with slots further comprising "mini slots" and "guard time" (see col. 4, lines 13-21 and col. 13, lines 30-33). Kolze discloses that guard time is provided between adjacent bursts and is well known in the art (col. 4, lines 13-17). Furthermore, Kolze discloses that longer bursts or slots are more bandwidth efficient, but on the other hand, longer code words in a burst may result in a less robust signal (see col. 4, lines 1-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Ghaibeh reference by using the teachings of the Kolze reference for using different slot/mini slot sizes in bursts for providing speed and efficiency in the system, and implementing the claimed 3 mini slots plus a guard byte as the defined slot length is merely a design choice as shown by using the teachings of the Kolze reference. One of ordinary skill in the art would have been led to make such a modification to the Ghaibeh reference as combined with the Kolze reference for the advantages given above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Citta et al (USPN 5,956,325) – Discloses adaptive random access protocol for CATV networks.

Dail et al (USPN 5,570,355) – Discloses a method and apparatus enabling synchronous transfer mode and packet mode access for multiple services on a broadband communications network.

Kou (USPN 5,303,234) – Discloses a random access data communication system with slot assignment capability for contending users.

Liebowitz et al (USPN 5,757,784) – Discloses a usage-based billing system for full mesh multimedia satellite network using TDMA and guard bytes.

Lin et al (USPN 5,966,163) – Discloses providing constant bit rate upstream data transport in a two way cable system by scheduling preemptive grants for upstream data slats using selected fields of a plurality of grant rules.

Pasternak et al (USPN 5,936,949) – Discloses a wireless ATM metropolitan area network, using TDMA, slots and guard time.

Raychaudhuri et al (USPN 5,638,371) – Discloses a multiservices medium access control protocol for a wireless ATM system using a TDMA approach.

Raychaudhuri et al (USPN 4,641,304) – Discloses an announced retransmission random access system.

Sardana (USPN 5,012,469) – Discloses adaptive hybrid multiple access protocols.

Art Unit: 2614

Van Driel et al (USPN 5,917,813) – Discloses a multiple access telecommunications network.

Williams (USPN 5,745,836) – Discloses an undesirable energy suppression system in a contention based communications network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoyer whose telephone number is (703) 305-6954.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (703) 305-4795.

Any response to this action should be mailed to:

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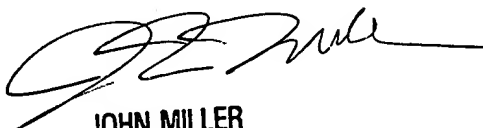
Or faxed to: (703) 872-9306

Art Unit: 2614

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Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to customer service whose telephone number is **(703) 308-HELP**.

Michael W. Hoye
May 16, 2004



JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600